

VOLCHANSKAYA, Ye.A., red.; MASLYANSKIY, G.N., red.; PUKHAL'SKIY,
G.V., red.; KHVOROSTANSKAYA, Ye.M., red.; VOLKOV, M.I.,
prof., retsenzent; REZNICHENKO, I.Ye., red.

[Metallurgical slag in the construction industry] Metal-
lurgicheskie shlaki v stroitel'stve. Kiev, Gosstroizdat
USSR, 1964. 235 p. (MIRA 17:5)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po de-
lam stroitel'stva.

BC

Processing of molybdenum-silica catalyst.
G. N. MAMANTOV and M. S. NIKITIN (Comm. read.
Acad. Sci. U.S.S.R., 1956, 2, 404-408).—The cata-
lytic activity of a mixture of MoSi_2 and ZrO_2 in the
 $\text{C}_2\text{H}_4/\text{H}_2$ reaction is diminished in the presence of
 O_2 . At poisoning above 200° , the activity
returns completely after the O_2 is removed. At 400°
poisoning is partly irreversible, and the greater is
poisoning in the gas, the lower is the residual activity
of the catalyst. H_2O vapour has similar effects,
but the deactivation of the reaction diminishes with
rising temperature. Poisoning the catalyst to
 450° in H_2 enhances, and the use of C_2H_4 -rich mixtures
diminishes, the activity of the catalyst. T. G. P.

BC

Molybdenum catalysts. G. N. Maslyanskiy and D. M. Blyakhman. Russ. 45,965, Jan. 31, 1950. MoO₃ is reduced to MoO by heating in an atm. of H below 450° and under atm. pressure.

1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS									
PROCESSING AND DISPOSITION CODES																			
ca										18									
<p>Hydrogenation catalyst. H. M. Blyskman and G. N. Malyanovskii. Russ. 51,780, Sept. 30, 1937. Oxides of Strontium, of Mo or W are reduced by H₂ to form catalysts.</p>																			
ASD-56A METALLURGICAL LITERATURE CLASSIFICATION																			
SOURCE DIVISION										SOURCE NUMBER									
SOURCE #										SOURCE ONE ONLY									
SOURCE #										SOURCE ONE ONLY									

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSING AND PROPERTY CODES																			
<div style="display: flex; justify-content: space-between;"> CA 18 </div> <p style="text-align: center;"> Regenerating molybdenum catalyst. G. N. Maslennikov. Zhil. Russ. 53,002, April 20, 1938. Addn. to Russ. 47,298 (C. A. 33, 3545). The spent catalyst is heated in a stream of air to 400-550° for a few hrs., then reduced with H₂ by the method described in the basic patent. </p>																			
<div style="display: flex; justify-content: space-between;"> <div> 430-51A METALLURGICAL LITERATURE CLASSIFICATION 430-51A </div> <div> 6-21-1000-1000 6-21-1000-1000 </div> </div>																			
FROM SYNDICATE 430-51A										FROM DOMESTIC 6-21-1000-1000									
430-51A 430-51A										6-21-1000-1000 6-21-1000-1000									

18

197 AND 210 ORDERS

PROCESSES AND PROPERTIES INDEX

Molybdenum and tungsten catalysts. G. N. Maslennikov. Russ. 53,575, July 31, 1938. Addn. to Russ. 47,788 (C. A. 33, 3545). In the prepn. of the catalysts according to the original patent, up to 20% of S is added to Mo and W oxides before their reduction.

ASD-31A METALLURGICAL LITERATURE CLASSIFICATION

197 AND 210 ORDERS

MASLYANSKII, G. N.

Steam treatment of slag brick. G. N. Maslyanskii and V. A.
Sytnik. Prom. Stroitel. Material. 2, No. 10-11, 95-9(1940).
E. E. Stefanowsky

1ST AND 2ND LETTER																										3RD AND 4TH LETTER										5TH AND 6TH LETTER									
AUTHOR INDEX																										SUBJECT INDEX										CROSS-REFERENCE INDEX									
<p>1. <i>Naumovskii, G. N., and Bytnik, V. A. UTILIZATION OF DUNEDINITE WASTE IN SLAG-BRICK PRODUCTION. From Stroitel' Material, 3 (12) 54-56 (1940).—Dokomite waste was substituted for slaked lime; the steam treatment remained unchanged.</i></p>																																													

1ST AND 2ND SECTIONS		PROCESSING AND PROPERTY INDEX	
BC		<div style="text-align: right; font-size: 1.2em; font-weight: bold;">B-2-1</div> <p>Building up of catalysts for destructive hydrogenation. 1. N. Maslanski and F. N. Schenderovitch (J. Phys. Chem. 1940, 44, 1807-1807).—MoO₃ catalysts used for hydrogenation of C₁₄ or C₁₆ cracking mineral oil should be fully reduced; admixture of 10% of MoO₃ lowers the activity of MoO₃ by 60%. Reduction of MoO₃ at 900° gave the most efficient catalysts, possibly owing to reduction being incomplete at lower temp. The activity of MoO₃ increases to a const. val. when the speed of the H₂ current increases. This val. is independent of the H₂ pressure, but when the H₂ current is slow the catalysts prepared at 80 atm. are more efficient than those obtained at 900 atm. If 2% of H₂O vapour is added to H₂, the resulting Mo oxide is dark brown instead of black and is almost inactive. Probably the rapid elimination of H₂O from the MoO₃ mixture during the reduction is the most important condition for obtaining active catalysts. Addition of Al₂O₃ or Cr₂O₃ to MoO₃ depresses its cracking and raises its hydrogenation efficiency; clay, NH₄ silicate, or NH₄ phosphate raises the cracking capacity without altering the rate of hydrogenation; K₂O and BaO are injurious in both respects. The activity of MoO₃ catalysts is little affected by the conditions of prep.</p>	
ASD-154 METALLURGICAL LITERATURE CLASSIFICATION		FROM SCIENCE	
COLLECTIONS		COLLECTED ONE ONE 111	

1ST AND 2ND ORDERS										PRODUCTS AND PROPERTIES INDEX										1ST AND 2ND ORDERS									
<p>Wads made from molten slag. G. N. Medvedskii, <i>Prum. Stroitel. Material</i>, 1941, No. 5, 84-5; <i>Chem. Engr.</i> 1942, II, 2941.—A brief description is given of an installation to produce slag wads from molten blast-furnace slags for insulation purposes. H. P. Krieger</p>																													
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>																													
<p>EDOM STWIDIAH</p>										<p>EDOM BOMIAH</p>										<p>EDOM BOMIAH</p>									
<p>EDOM STWIDIAH</p>										<p>EDOM BOMIAH</p>										<p>EDOM BOMIAH</p>									

72

1ST AND 2ND CODES PROCESSES AND PROPERTIES INDEX

4674. DESTRUCTIVE HYDROGENATION OF BENZENE. Maslynskii, G N (J. Gen. Chem. (U.S.S.R.), 1941, 11, 1221-30; Chem. Abstr. 1945, 39, 4058). High temp destructive hydrogenation of benzene was studied over the no oxide catalyst. The catalysate was shown to contain: pentane, 2 methyl-pentane, hexane, methylcyclopentane, and cyclohexane, as well as small amts. of cyclopentane. Methylcyclopentane was the main product under the conditions used; 200 atm. pressure and 475°. On the basis of the ratios of the products it is proposed that the weakest bonds in methylcyclopentane are those located 1 atom away from the methylated C atom.

3RD AND 4TH CODES

5TH AND 6TH CODES

7TH AND 8TH CODES

9TH AND 10TH CODES

11TH AND 12TH CODES

13TH AND 14TH CODES

15TH AND 16TH CODES

17TH AND 18TH CODES

19TH AND 20TH CODES

21ST AND 22ND CODES

23RD AND 24TH CODES

25TH AND 26TH CODES

27TH AND 28TH CODES

29TH AND 30TH CODES

31ST AND 32ND CODES

33RD AND 34TH CODES

35TH AND 36TH CODES

37TH AND 38TH CODES

39TH AND 40TH CODES

41ST AND 42ND CODES

43RD AND 44TH CODES

45TH AND 46TH CODES

47TH AND 48TH CODES

49TH AND 50TH CODES

51ST AND 52ND CODES

53RD AND 54TH CODES

55TH AND 56TH CODES

57TH AND 58TH CODES

59TH AND 60TH CODES

61ST AND 62ND CODES

63RD AND 64TH CODES

65TH AND 66TH CODES

67TH AND 68TH CODES

69TH AND 70TH CODES

71ST AND 72ND CODES

73RD AND 74TH CODES

75TH AND 76TH CODES

77TH AND 78TH CODES

79TH AND 80TH CODES

81ST AND 82ND CODES

83RD AND 84TH CODES

85TH AND 86TH CODES

87TH AND 88TH CODES

89TH AND 90TH CODES

91ST AND 92ND CODES

93RD AND 94TH CODES

95TH AND 96TH CODES

97TH AND 98TH CODES

99TH AND 100TH CODES

1ST AND 2ND ORDERS										PROCESSING AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
<p>CA</p> <p>Kinetics of isomerization of cyclohexane at high pressures. G. N. Maslanskii. <i>J. Gen. Chem. (U. S. S. R.)</i> 13, 545-51 (1943) (English summary).—Catalytic isomerization of cyclohexane to methylcyclopentane over MoS₂ was studied under H₂ pressure. The reaction rate depends upon the partial pressure of cyclohexane and is independent of H₂ partial pressure; the reaction is of fractional order (about 0.6). Apparent activation energy between 370-430° is 85,400 ± 1000 cal.; the temp. coeff. at 400° is 1.5 per 10°. Although increased H₂ pressure does not directly affect the kinetics of the reaction, it helps to preserve the catalyst activity. G. N. Kosolapoff</p>										<p>2</p>																			
<p>ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION</p>																													
<p>1ST AND 2ND ORDERS</p>										<p>PROCESSING AND PROPERTIES INDEX</p>										<p>3RD AND 4TH ORDERS</p>									
<p>CA</p> <p>The destructive hydrogenation of benzene. G. N. Maslanskii. <i>J. Gen. Chem. (U. S. S. R.)</i> 16, 148-50 (1944) (English summary); cf. C.A. 38, 3887.—When 1 vol. C₆H₆, per hr. is passed with 10 vols. H₂ over 1 vol. MoO₃ catalyst at 200 atm. and 475°, the product contains 8% C₆H₆, 14% cyclohexane, 58% methylcyclopentane, 8% 2-methylpentane, 0.5% cyclopentane, 1.5% C₄H₈, 1.5% isopentane and 1.0% condensation products. The weakest bond in I is probably the 2nd from the methylated C atom. H. M. Leicester</p>										<p>10</p>																			
<p>ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION</p>																													
<p>1ST AND 2ND ORDERS</p>										<p>PROCESSING AND PROPERTIES INDEX</p>										<p>3RD AND 4TH ORDERS</p>									

1ST AND 2ND CODING										3RD AND 4TH CODING									
PROCESSES AND PROPERTIES INDEX																			
<p>F</p> <p>2419. DESULPHURISATION OF GASOLINES WITH NICKEL CATALYST. Maslyanaki N. (Doklady akad. nauk. S.S.S.R. 1944, 45, 25-8; chem abstr 1945 99, 1283). The tendency of S contg compd in gasoline to poison Ni hydrogenation catalysts can be counteracted by carrying out the hydrogenation under such conditions that the ratio of the molar concns. of H_2 and gasoline is 6:1 (for gasoline contg. 0.15% S or less) or 9:1 (for gasolines contg 0.2% S). Other conditions for successful use of Ni catalysts for desulphurising gasolines were: pressure 10 atm., temp. 200° rate of flow 1.7-2 vols. of gasoline per vol. of catalyst per hr. In one expt., lasting 638 hrs., the Ni catalyst retained its activity unimpaired and a uniformly desulphurized product was produced contg. 0.012-0.018% S from feed stock contg, 0.12-0.15% S. The amt of S removed, as H_2S, in this expt was 3.5 times that required for chem conversion of the Ni in the catalyst into sulphide.</p>																			
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>330M STYRISIVN</p>										<p>330M BOWIRV</p>									
<p>330M STYRISIVN</p>										<p>330M BOWIRV</p>									

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSING AND PREPAREDNESS MODES																			
CA		<p>Nickel catalyst. G. N. Madyanski, E. I. Mezhebov, skaya, and V. A. Madyanskaya. U.S.S.R. 65,401, Feb. 28, 1948. A Ni catalyst for conversion of isobutylene into isobutane is prepd. by pptg. Ni hydroxide on a carrier and then reducing the Ni at a temp. above 200° under 10-15 atm. pressure. By this method of prepn. passivation of the catalyst is avoided. M. Hosh</p>																	
COMMON ELEMENTS																			
COMMON VARIABLES MODES																			
ASM, S.A. METALLURGICAL LITERATURE CLASSIFICATION										SPECIAL MODES									
FROM STUDIOS										FROM BOWERY									
SOURCES PA										SOURCES QW QW QW QW									
SOURCES PA										SOURCES QW QW QW QW									

1ST AND 2ND CROSS										3RD AND 4TH CROSS									
PROCESSES AND PROPERTIES INDEX																			
F																			
<p>2476. BUTYLENES AND BUTANES. Maslyanskii, G.N. and Veltitsova, M.V. (U.S.S.R. P. 67,612, 31 Dec. 1946; abstr. in Chem. Abstr., 1949, vol. 43, 3187). Propylene or propane-propylene fraction obtained in cracking or pyrolysis of liquid fuels at 350-550° is passed at atmospheric or elevated pressures over a polymerisation catalyst, e.g. aluminosilicates or P_2O_5. In one pass, there are obtained butylenes, and butanes 25, and liquid hydrocarbons not over 8-10%. The butylene-butane fraction comprises isobutylene 20, a mixture of normal butylenes, 40, and butanes, predominantly isobutane, 40%.</p>																			
C.A.																			
<p>ASS-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>83001 5710311V</p>										<p>83001 50111V</p>									
<p>831131 001 001 151</p>										<p>831131 001 001 151</p>									

<p>191 APR 7 1952 (91121) PROCEEDINGS AND PROCEEDINGS</p>		<p>ME AND 614 (91121)</p>	
<p>CA</p>		<p>22</p>	
<p>Conversion of hydrocarbons on aluminosilicate catalysts 1. Cyclohexane. G. N. Maslennikov and T. S. Berlin (Central Research Inst. Aviation Fuels, Moscow). <i>J. Gen. Chem.</i> (U.S.S.R.) 18, 1643-54(1948)(in Russian).— In 1-hr. expts. over an artificial granulated aluminosilicate catalyst (SiO₂ 90, Al₂O₃ 10%), vol. 50 ml., rate of flow of cyclohexane 40.8 ml./hr., at 515°, the yield in catalyze Y was 80.4 wt. %, gas 1300 ml. of the compn. (vol. %): CO₂ 0.4, H₂ 41.0, C₂H₄ 17.0, C₃H₆ 41.6; at the same temp., r 15.0, Y = 78.5%, amt. and compn. of gas almost unchanged; at 500°, Y = 62.2%, gas 3000 ml., of very nearly the same compn. as before. Typical fractionation of a catalyze (515°, r 15 ml./hr.; iodine no. 5.9): b. < 90, 90-75, 75-85, 85-100, 100-120, 120- 150, >150°; 0.2, 11.2, 73.2, 0.6, 0.8, 1.0, 7.0 wt. %. By the ss and reaction with KMnO₄, the 100-120° and 120-150° fractions contained mainly C₁₀H₁₈ and C₁₁H₂₀ (CH₃), resp.; by the iodine no. and sulfonation, the C₁₀H₁₈ and the unsatd. hydrocarbon content in the 90-75° fraction constituted about 8% each; after hydrogenation, dehydrogenation and sulfonation, that fraction (by the</p>			
<p>aniline point) consisted of methylcyclopentane 75, hexanes 20; this indicates some amt. of isomerization of the cyclohexane; in the 75-85° fraction, C₁₀H₁₈ and unsatd. hydrocarbons constituted only about 1% each. Thus, formation of unsatd. hydrocarbons and simple dehydro- genation of cyclohexane into C₁₀H₁₈ are only relatively slight at 515°, somewhat higher at 500°; the fractions b. 90-75, 75-85, 85-100, 100-120, 120-150°; 8.9, 62.6, 2.7, 3.6, 4.9%, resp., had the following contents in unsatd. and aromatic hydrocarbons: 14.1, 23.6; 2.0, 3.0, 2.6, 13.4; 0.0, 74.0; 0.0, ~100%; in the combined fractions 90-150°, C₁₀H₁₈, C₁₁H₂₀, C₁₁H₁₈(CH₃), and C₁₀H₁₆, aromatic compds. b. above 150°, constituted 5.0, 2.7, 4.0, 8.3%, resp. The main trend of the reaction is dehydrogenation of cyclohexane coupled with synthesis of alkyl-substituted C₁₀H₁₈ deriva., by a mechanism thought to involve C₁₀H₁₇ radicals. That the substitutions occur freely, especially at high temp., follows from the standard free energies at 833°K., computed for the reactions: C₁₀H₁₈ + n-C₁₀H₁₈ = C₁₀H₁₇CH₃ + n-C₁₀H₁₇, -7120; C₁₀H₁₈ + n-C₁₀H₁₈ = C₁₀H₁₇CH₃ + n-C₁₀H₁₇, -2930; C₁₀H₁₈ + n-C₁₀H₁₈ = C₁₀H₁₇(CH₃) + n-C₁₀H₁₇, -3290; C₁₀H₁₈ + n-C₁₀H₁₈ = C₁₀H₁₇CH₃ + C₁₀H₁₆, -6030 cal./mole. Com- parison of the amt. of H₂ in the gas and the amt. of C₁₀H₁₈ deriva. formed shows the H₂ to be in excess (up to 30%) of the stoichiometric ratio; this parallels the formation of high-C deposits on the catalyst which requires regenera- tion by an air stream at 610-640° for 2 hrs. N. Thon</p>			
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>10000 SYNOBIS</p>			
<p>100000 1111 000 001</p>			
<p>1000000</p>			
<p>1000000 000 000 111</p>			

1ST AND 2ND COPY		3RD AND 4TH COPY	
<p>Transformations of hydrocarbons on silanized catalysts. H. Methylocyclohexane. G. N. Maslyan-shil, R. I. Mezhebovskaya, and T. S. Berlin (Central Inst. Aviation Fuels and Oils, Moscow). <i>J. Gen. Chem. (U.S.S.R.)</i> 10, 1823-30 (1946) (in Russian); cf. C.A. 61, 8280c. — Expts. were run at 515° for 1 hr., with 50 ml. of the previously described catalyst, with purified methylcyclohexane. At rates of feeding $r = 14.5$ and 50.0 ml./hr., the yields of catalyst were, resp., 57.5 and 83.5%, gas 2900 and 3300 ml., of the compn. (CO, CO₂, H₂, C₂H₄, C₃H₆, C₄H₈) 0.4, 0, 24.2, 15.7, 59.7%, and 0.4, 0.2, 24.7, 25.9, 48.8%. The catalysts were fractionated into b. up to 40°, 40-60°, 60-75°, 75-85°, 85-95°, 95-105°, 105-120°, 120-150°, 150-170°, over 170°, with the amts. (in wt.-%) 1.9, 0.7, 2.8, 3.2, 6.9, 40.7, 10.3, 9.9, 6.2, 7.5%, and 0.9, 0.3, 2.4, 2.7, 7.0, 69.9, 1.7, 3.8, 4.7% (last 2 fractions); contents in unsatd. compds., 0, 16, 11, 10, 8, 3, 6, 1, 1, 0%, and 22, 0, 15, 6, 8, 1.5, 16, 5, 0%; contents in aromatics 0, 0, 8, 6, 2, 11.5, 43, 99, 99, 0%, and 0, 0, 6, 5, 3, 10.5, 17, 67, 0%. The combined 85-95° fractions, hydrogenated at 180° over Pt-C, dehydrogenated at 310-320°, and purified by sulfonation, washing, and distn., had d_4^{20} 0.7408, n_D^{20} 1.4062, aniline point 48.9°, close to 1,3- and 1,3-dimethylcyclopentane, and are considered to consist mainly of a mixt. of the two. In the 95-120° fraction of the run at $r = 14.5$, PhMe was identified by nitration. By oxidation with KMnO₄ into BaOH and phthalic acids, the 120-150° fraction of the same run was found to have the approx. compn.: PhEt 8, o-C₆H₄Me, 33, m-C₆H₄Me, 47, p-C₆H₄Me, 12%. Likewise by way of oxidation with KMnO₄, the 150-170° fraction was found to consist mainly of mesitylene and pseudocumene. In the combined fractions b. 60-150°, the contents in C₆H₆, PhMe, xylenes and PhEt, trimethylbenzenes for $r = 14.5$ and 50.0 were: 0.6, 13.9, 9.9, 6.2, and 0.5, 7.6, 2.5, 0%; resp.; i.e., a 3-4 fold reduction of r (lengthening of the time of contact) almost doubled the yield in PhMe and tripled the yield in higher-boiling aromatics. The amt. of H liberated lags behind that calcd. from the yield in aromatics; hence a major part of the H made available by the dehydrogenation of the hydroaromatics is spent in satn. of the unsatd. products of the decompn. With the same catalyst, methylcyclohexane undergoes a deeper transformation than cyclohexane.</p>		<p>10</p>	
<p>ABR-114 METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM SYNDICATE</p>		<p>FROM SYNDICATE</p>	
<p>DATE OF RECEIPT</p>		<p>DATE OF RECEIPT</p>	

C.A.

Conversion of hydrocarbons on aluminum-oxide catalysts. III. Normal butylenes. G. N. Maslanyan and M. V. Velistova. J. Gen. Chem. (U.S.S.R.) 78, 2132-40(1946) (in Russian); cf. C.A. 41, 5460i.—Butene, at prepd. by dehydration of BuOH over active Al₂O₃ at 610° and contly. 4% isobutane, passed over at a rate synthetic Cr-Al₂O₃ (7 parts SiO₂:1 part Al₂O₃) at 370°, 450°, and 500° gave catalytic yields (with respect to initial C₄H₈) of 19.5, 22.0, and 11.0%, resp. The therm. compn. of the 370° catalyzate (in %) was: unsatd. carbons 65.8 (of which C₂ was 3.0, C₃ 4.4, C₄ 8.5, C₅ 33.3, C₆ 7.1, C₇ and higher 9.5), aromatic hydrocarbons 19 (or less) (C₆H₆, PhMe, C₆H₅Me not detd., C₆H₅Me + b. >180° 12.0); the corresponding figures for the 450° and the 500° catalyzates were: unsatd. 44.4, 34.9 (18.5, 4.8, 4.8, 4.7; 9.0, 4.7; 8.1, 4.6; 3.8, 4.3; 3.2, 1.8); aromatic 10.3, 18.4; C₆H₅Me 10.3, 18.4; C₆H₅Me + b. >180° 13.5, 18.3). The fractional compn. of the 370° catalyzate was: C₂ (b. < 40°) 3.0, C₃ (b. 40-70°) 4.5, C₄ (b. 70-100°) 9.2, C₅ (b. 100-225°) 38.2, C₆ (b. 125-150°) 8.4, b. >150° 37.3; the 450° and 500° catalyzates had the fractional compn. (C₂, C₃, C₄, C₅, C₆, C₇ (b. 150-80°), b. >180°) 20.4, 7.0, 15.5, 13.0, 11.4, 12.1, 14.5%, and 6.4, 6.0, 5.8, 10.1, 23.8, 19.4, 19.1%. The % contents of: unsatd. hydrocarbons in the fractions stated were: at 370°: —, 97.87, 87.85, —, 35; at 450°: 78, 68, 58, 62, 33, 12; at 500°: 76, 70, 69, 46, 18, 5, 4; the % contents in aromatic hydrocarbons: at 450°: —, 41, 8, 61, 85, 88; at 500°: —, 7, 35, 82, 93, 96. The compn. of the gas is given for the reaction at 450°: H₂ 2.2, CH₄ 1, C₂H₆ 14.4, C₃H₈ 17.2, C₄H₁₀ 6.2, iso-C₄H₁₀ 9.2, n-C₄H₁₀ 18.4, iso-C₅H₁₂ 27.6, n-C₅H₁₂ 4.8; at a rate of flow of 300 vol. gas/vol. catalyst/hr., the figures are: 2.0, 8.3, 17.6, 4.3, 14.2, 34.0, 15.7, 4.0. Thus, at 370° the main products of the reaction are octenes; their formation is ascribed to direct dimerization of C₄H₈. At the higher temp., 450°, the yield in C₄H₁₀ decreases, the octenes undergoing decompn. into C₂H₆ and C₃H₈ which appear in increasing amts. in the reaction products; the C₄H₁₀ which depolymerizes into C₂H₆ + C₃H₈ instead of into 2C₂H₆ must be assumed to have undergone preliminary isomerization. The heptenes, heptenes, and nonenes produced are assumed to have been built up in secondary reactions from the C₄H₈ and C₄H₁₀ issued from C₄H₈ and the initial C₄H₈. The yield of unsatd. hydrocarbons decreasing, and that of aromatics increasing markedly with rising temp., it is evident that the latter (mainly xylenes and trimethylbenzenes) are formed through direct cyclization of the olefins. Despite the high yield of aromatics, the amt. of H evolved is insignificant; consequently, the H is almost entirely spent in hydrogenation of olefins. The gas contains much larger amts. of iso-olefins than would correspond to its equil. with butane; at 450°, the ratio of the former to the latter in the gas is from 3.9 to 5.8 while the equil. ratio is 0.54; consequently, isobutane is not produced by isomerization of butane but can only be formed through hydrogenation of the isobutene produced by isomerization of the initial butene.

N. Thon

6-2-48

1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX		3RD AND 4TH ORDERS	
<p>2345. CATALYTIC AROMATIZATION OF LIGROINS UNDER HYDROGEN PRESSURE. Maslyanski, G. N., Meshebovskaya, E. I. and Khol'yavko, V. S. (Neftyanoe Khoz., 1946, 24, No.9/10, 40-6; hem. Abstr., 1947, 41, 3947).</p> <p>A Grozny naphtha b.145-190° and 3 other Russian anphthas were subjected to aromatization over a $\text{Cr}_2\text{O}_3\text{-Al}_2\text{O}_3$ gel catalyst in a pilot plant at 515-540° under 20 atm. pressure of H_2, to obtain data for industrial-scale hydroforming operations. The optimum feed rate appears to be 0.9 vols. per volume of catalyst per hr., with gas recycling at the rate of 750 l. per l. of feed. About 75% of gasoline of octane no. 73-80 is obtained, including 65% of aviation fuel boiling up to 170°. The gasoline contains about 45% aromatic compounds.</p>					
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>EXDNI DIVISION</p>					
<p>EXDNI DIVISION</p>					

1ST AND 2ND CODES		PRECEDENCE AND PRIORITY MARKS		3RD AND 4TH CODES	
<p>Effect of gas treatment on the activity of chromium catalysts. G. N. Maslennikov and N. R. Burian (Central Inst. Aviation Fuels and Oils, Moscow). <i>J. Gen. Chem. (U.S.S.R.)</i> 17, 208-12 (1947) (in Russian).—(1) The</p>		<p>$\text{Cr}_2\text{O}_3 \cdot 2\text{H}_2\text{O} + \text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$ catalyst used in dehydrogenation of cyclohexane at 450°, rate of feeding 15 ml./hr./20 ml. catalyst, was regenerated in air at a temp. of 450° to 650°. The activity α (in % dehydrogenation) rose with rising temp. of regeneration, e.g., 6 hrs., 450°, 550°, 650°, $\alpha = 20.8, 25.1, 28.8\%$. Lengthening of the time of treatment beyond 6 hrs. had no effect. Changes of α with change of temp. of regeneration are reversible. After treatment at 500° and 600°, the presence of CrO_3 was detected iodometrically, the ratio $\text{CrO}_3/\text{Cr}_2\text{O}_3$ being 0.078 and 0.092, resp.; it indicates that high α is linked with formation of higher oxides. This was further confirmed by expts. in which the catalyst, previously treated in air at 500°, was further heated at 600°, 6 hrs., in either air or in N_2; in the 1st case, α was 28.3%, the catalyst had $\eta = 1.4420$; in the 2nd case, $\alpha = 12.6\%$, $\eta = 1.4330$. (2) Higher temp. of reduction in H_2 of the catalyst previously regenerated in air at 500°, 6 hrs., results in lower α: catalysts reduced for 12 hrs. at 550° and 450° showed initial activities corresponding to 26 and 48 (ml. gas evolved/min.), resp.; however, the less active catalyst remained unchanged over 150 min. of reaction while the activity of the other declined steadily over the same period. (3) Identical reduction at 450°, 12 hrs., of two catalysts, one of which had been previously regenerated in air at 450°, the other at 550°, showed the latter to be more active; consequently, the higher α acquired through air regeneration at a higher temp. is preserved even after reduction. N. Thon</p>			
<p>ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION</p>					

TERESHCHENKO, V. A., MASLYANSKIY, G. N.

Building Materials

Products from clay-coagulated mass Stek. i ker. 9 no. 5, May 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952. 2 Unclassified.

MASLYANSKIY, G. N.

Slag

Proper utilization of blast-furnace liquid slags for the production of building materials.
Stroitel'stvo No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

MASLYANSKIY, G.N., inzhener; EPSHTEYN, S.A., inzhener.

Loess-like clayey soil as a filler in concrete and mortar. Stroi.prom. 31
no.6:36-37 Je '53. (MLRA 6:7)

1. YuZnii. (Clay) (Mortar) (Concrete)

MASLYANSKIY, G. N.

7659. MASLYANSKIY, G. N. -- Povysheniye Prochnosti shlakovykh iz deliy sposobom preryvistoy aktivizatsii i proparki v formakh. kiyev, izd-vo akad. arkhitektury USSR, 1954. 36 s. s ill. 22 sm. (M-VO stroitel'stva i predpriyatiy metallurgich. i khim. prometi SSSR. Tekhn. UPR Yuzh. Nauch.--issled. in-t po stroitel'stvu Yuzh-nii. Nauch. Soobshcheniya). 3.500 ekz. 1R. 10K. -- (5563780)P 666.88

SO: Knizhnaya Letopsis', Vol. 7, 1955

AUTHORS: Maslyanskiy, G. N., Bursian, N. R. SOV/79-28-10-6/60

TITLE: Kinetics of the Dehydration of Cyclohexane and Its Homologs on the Chromium Catalyst at Atmospheric Pressure (Kinetika degidrirovaniya tsiklogeksana i yego gomologov na khromovom katalizatore pri atmosfernom davlenii)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 10, pp 2656 - 2662 (USSR)

ABSTRACT: In the present paper the kinetics of the dehydration of cyclohexane on the ($\text{Cr}_2\text{O}_3/\text{Al}_2\text{O}_3$) catalyst was investigated at atmospheric pressure. In addition, the relative dehydration velocities of some homologs of cyclohexane (of methyl cyclohexane); 1,3-dimethyl cyclohexane; 1,3,5-trimethyl cyclohexane, isopropyl cyclohexane) were determined. It was found that the rate of the dehydration reaction can be represented by a kinetic equation for the monomolecular reaction which is slowed down by its products (see equation (2) in the experimental part). It is shown that benzene does not exert any hampering effect on the rate of the reaction. The rate of dehydration of the six-membered (cyclo-

Card 1/3

Kinetics of the Dehydration of Cyclohexane and Its
Homologs on the Chromium Catalyst at Atmospheric Pressure

SOV/79-28-10-6/60

paraffin) increases regularly with increasing molecular weight of the hydrocarbons. Table 1 gives the constants of the hydrocarbons used; table 2 shows the influence of the velocity of the passage of cyclohexane on its dehydration depth; table 3 shows the influence of the reaction temperature on the rate of dehydration of cyclohexane. The dehydration experiments of the cyclohexane mixture with benzene are given in table 4, and the dehydration experiments of various six-membered cycloparaffins are given in table 5. There are 5 tables and 16 references, 13 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefiti i gaza i polucheniyu iskusstvennogo zhidkogo topliva (All-Union Scientific Research Institute for the Processing of Petroleum and Gases, and for the Production of Synthetic Liquid Fuels)

SUBMITTED: July 29, 1957
Card 2/3

AUTHORS: Maslyanskiy, G. N., Bursian, N. R. SOV/79-28-10-7, 6c

TITLE: Investigation of the Dehydration Reaction of Cyclohexane on Chromium Catalysts Under Hydrogen Pressure (Izucheniye reaktsii degidrirovaniya tsiklogeksana na khromovom katalizatore pod davleniyem vodoroda)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 10, pp 2663 - 2667 (USSR)

ABSTRACT: The aim of the present paper is the investigation of the rules governing the dehydration reaction of cyclohexane on $\text{Cr}_2\text{O}_3/\text{Al}_2\text{O}_3$ catalysts at increased pressure. It was found that the velocity of the reaction is proportional to the partial pressure of cyclohexane within the limits of 0,5 - 4,0 atmospheres absolute pressure. On the other hand, an increase of the partial pressure of hydrogen caused a slowing down of the dehydration of cyclohexane. It could be assumed that the cause of this hindrance of the reaction through hydrogen was in relation to the reaction kinetics. The results obtained make it possible to demonstrate the dehydration

Card 1/3

Investigation of the Dehydration Reaction of Cyclohexane on Chromium Catalysts Under Hydrogen Pressure

SOV/79-28-16-7/60

velocity of cyclohexane at increased pressure by means of a kinetic equation taking into account the hindering effect of hydrogen (see experimental part, page 2664). The rules found for the dehydration of cyclohexane on a chromium catalyst at atmospheric pressure remain valid also at pressures of up to 20 atmospheres absolute pressure, as it was demonstrated. The fact is important that the catalyst highly active at atmospheric pressure, considerably loses its activity in experiments carried out at hydrogen pressure, so that the reaction depth of cyclohexane is very low, even at 500° (Refs 6,5). The reason for this is not only to be found in the hydrogen but also in the deactivation of the catalyst. The experiments showed that one and the same amounts of the catalyst show great differences in their activities at atmospheric and increased pressure. This deactivation is probably one of the causes of the limited use of the chromium catalyst in modern aromatization processes. There are 1 figure, 3 tables, and 13 references, 10 of which are Soviet.

Card 2/3

Investigation of the Dehydration Reaction of Cyclo-
hexane on Chromium Catalysts Under Hydrogen Pressure

SOV/79-28-10-7/00

ASSOCIATION: Vsesoyuznyy institut po pererabotke nefiti i gaza i polu-
cheniyu iskusstvennogo zhidkogo topliva (All-Union In-
stitute for the Processing of Petroleum and Gases and for
the **Production** of Synthetic Liquid Fuels)

SUBMITTED: July 29, 1957

Card 3/3

MASLYANSKIY G. N.

КАТАЛИТИЧЕСКАЯ ИЗОМЕРИЗАЦИЯ
ПАРАФИНОВЫХ УГЛЕВОДОРОДОВ
Г. Н. Маслянский, В. А. Мельник, М. Р. Бурман,
А. В. Рубин

VIII Mendeleev Congress for General and Applied Chemistry in
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1979

abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 15 March 1979.

MASLYANSKIY, G.N.; MUSHENKO, D.V.

Catalytic cracking of gas oils in the presence of propylene and of
the propane-propylene fraction. Trudy VNIINeftekhim no.3:97-102 '60.
(MIRA 14:2)

(Cracking process) (Propene)
(Propane)

5.3300
5.1190

20680
S/153/60/003/02/28/034
B011/B006

AUTHORS:

Naslyanskiy, G. N., Bursian, N. R., Barkan, S. A.,
Kobelev, V. A., Telegin, V. G.

TITLE:

Catalytic Isomerization of n-Pentane¹

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i
khimicheskaya tekhnologiya, 1960, Vol. 3, No. 2, pp. 359-363

TEXT: Aluminum chloride, besides having certain advantages, also possesses disadvantages which complicate isomerization. In the years between 1948 and 1951, i.e. at a much earlier date than the USA scientists (Refs. 2-4), the authors developed a process for isomerizing normal paraffinic hydrocarbons (from butane to heptane inclusively) (Refs. 5,6) which does not differ fundamentally from the American process. Tungsten sulfide- and specially prepared platinum catalysts were used. They are catalytically active around 400°, so that the reaction proceeds only at increased pressure in presence of hydrogen and by circulating the gas. The catalysts are discussed. The tungsten sulfide WS₂ proved to be most suitable. Characteristic data on its mode of action in n-hexane isomerization are

Card 1/3

Catalytic Isomerization of n-Pentane

S/153/60/003/02/28/034
B011/B006

given in Table 2. Under normal conditions, WS_2 is fairly insensitive to poisoning. After 1500 h however, the degree of isomerization of n-hexane drops from 58.5% to 54%. The stability of WS_2 can be maintained by admixing slight quantities of sulfur to the raw material. This complicates the technical process and corrodes the apparatus. In the case of platinum on fluorinated aluminum oxide, the authors investigated the effect of an increase in fluor content on the activity of the catalyst. It is seen from the results obtained, that the Al-Pt catalyst, prior to activation with fluorine, does not catalyze the isomerization of n-hexane (Fig. 1). At fluorine contents of up to 5%, catalytic activity increases considerably. A further rise in the F content (up to 15%) increases the activity but slightly. Table 1 shows the specific surface of the catalyst as a function of the F content. The above-mentioned increase in activity cannot be explained by an increase in the specific surface alone, but is also due to changes in the chemical- and physical properties of the catalyst. The activity of 0.6% platinum on an aluminum silicate carrier can be increased greatly by changing the properties of the carrier (Table 2). The results obtained using 0.6% palladium on aluminum silicate (Table 2) were even better than those obtained with Pt (52% yields of isopentane). Palladium

Card 2/3

Catalytic Isomerization of n-Pentane

S/153/60/003/02/28/034
B011/B006

on aluminum silicate can therefore be applied as a suitable substitute for platinum on the same carrier. Finally the authors describe the technical process and give a basic scheme of the isomerization apparatus (Fig. 2). This paper was read at the Vsesoyuznaya Konferentsiya "Puti sinteza iskhodnykh produktov dlya polucheniya vysokopolimerov" (All-Union Conference "Ways for Synthesizing Initial Materials for the Preparation of High Polymer Substances) held at Yaroslavl' from September 29 to October 2, 1958. The specific surface was determined by G. M. Osmolovskiy. There are 2 figures, 2 tables, and 17 references, 9 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut nefte-khimicheskikh protsessov (All-Union Scientific Research Institute of Petroleum-chemical Processes)

Card 3/3

S/065/60/000/009/004/006/XX
E030/E112

AUTHORS: Maslyanskiy, G.N., Bursian, N.R., Kamusher, G.D.,
Barkan, S.A., and Shuvayev, Ye.S.

TITLE: Catalytic Reforming of Benzine Fractions on a
Platinum Catalyst 7

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No. 9,
pp. 1-9

TEXT: Full-scale plant studies have been conducted on reforming Eastern and Southern crudes on a platinum/alumina catalyst. Rumanian, Kirkuk, and Egyptian crudes have also been investigated. Two types of plant have been developed with reactor pressures around 20 and 40 atmospheres respectively, the former being better for producing high octane spirit and aromatics for organic synthesis. With a 60-120 °C straight-run fraction at 465 °C, the aromatic yield falls from 27% weight to 22%, and at 505 °C from 36 to 32%, on increasing the pressure from 20 to 40 atmospheres. However, coking of the catalyst and deactivation by sulphur compounds become troublesome at the lower pressures, especially with C₈ and heavier fractions. If the sulphur content

Card 1/3

S/065/60/000/009/004/006/XX
E030/E112

Catalytic Reforming of Benzine Fractions on a Platinum Catalyst

of the crude rises from 0.01% to 0.27%, the octane number falls from 77.3 to 70.3, the aromatic yield falls 1.7 times, and the gas yield increases 1.5 times. The sulphur content of the feedstock should be less than 0.02%, especially at 20 atmospheres operation. For low sulphur crudes (0.05-0.7% sulphur feed), the H_2S is removed from the circulating gas with ethanolamine, and for high sulphur feeds (greater than 0.7% weight sulphur) hydrofining is necessary. The catalyst can be regenerated by oxidation for about 30 hours at 300-450 °C, with 0.8-1.5% of oxygen in the gas which circulates at 10-20 atmospheres. After subsequent regeneration, the aromatic yield falls by 30-50%. Oxidation at higher temperatures (around 550 °C) is impracticable because the catalyst becomes deactivated. The most important crude factor determining the yield of high octane spirits and aromatics is the naphthene content. Southern crudes (containing about 50% naphthenes) yield 1.5 times more aromatics than Eastern crudes (containing about 25% naphthenes), the difference becoming greater as higher boiling feedstocks are used. At 80 ON severity, the 85-180 °C cuts yields 83% motor

Card 2/3

S/065/60/000/009/004/006/XX
E030/E112

Catalytic Reforming of Benzine Fractions on a Platinum Catalyst
spirit from Eastern crude, and 91% from Southern crudes.
A.A. Potapova participated in the work.
There are 2 figures, 4 tables and 17 references: 5 Soviet and
12 non-Soviet.

ASSOCIATION: VNIIneftekhim, Giproneftezavody
(VNIIneftekhim, Giproneft Works)

Card 3/3

86507

S/079/60/030/011/013/026
B001/B066

11.12.10

AUTHORS: Bursian, N. R. and Maslyanskiy, G. N.

TITLE: Investigation of Cyclohexane Conversions With a Molybdenum Catalyst

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 11, pp.3702-3708

TEXT: It is shown in the present paper that two reversible reactions occur at the same time when passing cyclohexane over the catalyst ($\text{MoO}_3/\text{Al}_2\text{O}_3$) at a hydrogen pressure between 10 and 40 atm and at temperatures between 455 and 495°C ; dehydrogenation of cyclohexane to benzene, and its isomerization to methyl cyclopentane. It was the purpose of the present paper to study the influence of reaction conditions upon the composition of reaction products, and to determine the factors by which the relative rates of dehydrogenation and isomerization of cyclohexane might be controlled. The reaction conditions correspond approximately to those used in the industry in aromatization processes (with the above molybdenum catalyst). To analyze the results, the equilibrium ratios of the reactants had to be calculated from the course

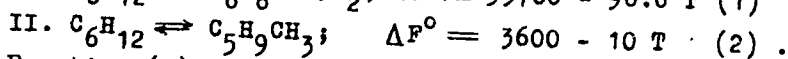
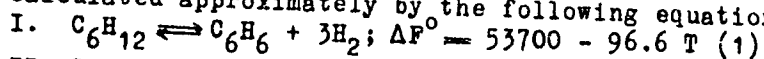
Card 1/3

86597

Investigation of Cyclohexane Conversions
With a Molybdenum Catalyst

5/079/60/030/011/013/026
B001/B066

of the two reactions. The free energy values for these reactions may be calculated approximately by the following equations:



Equation (1) according to A. Francis (Ref.8) agrees well with the experimental data of V. R. Zharkova and A. V. Frost (Refs.9,10). Also equation (2) (Ref.11) corresponds well with the experimental data (Ref.12). On the basis of these equations, the dependence of the logarithms of the equilibrium constants K_I and K_{II} for reactions I and II may be expressed as follows:

$$\log K_I = - \frac{53700}{4.573 T} + 21.12 \quad (3);$$

$$\log K_{II} = - \frac{3600}{4.573 T} + 2.19 \quad (4), \text{ where } K_I = \frac{p_2 \cdot p_4^3}{p_1^3}; K_{II} = \frac{p_3}{p_1};$$

p_1, p_2, p_3, p_4 = partial pressures of cyclohexane, benzene, methyl cyclopentane, and hydrogen, respectively. The percentage content of benzene, methyl cyclopentane, and cyclohexane in their equilibrium mixture

Card 2/3

86507

Investigation of Cyclohexane Conversions
With a Molybdenum Catalyst

S/079/60/030/011/013/026
B001/B066

according to the experimental conditions was calculated from the values K_I and K_{II} (Tables 1 and 2). The rates of isomerization and dehydrogenation of cyclohexane at temperatures between 455 and 495°C and a hydrogen pressure of about 20 atm are thus commensurable. The quantitative ratio between benzene and methyl cyclopentane in the catalyzate depends on the degree of cyclohexane conversion. The formation rate of benzene decreases and that of methyl cyclopentane increases with increasing hydrogen pressure. This paper was presented to the All-Union Conference on Organic Catalysis, November 18, 1959, Moscow. There are 3 figures, 2 tables, and 18 references: 10 Soviet and 8 US.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefiti i gaza i polucheniyu iskustvennogo zhidkogo topliva (All-Union Scientific Research Institute for the Processing of Oil and Gas and the Production of Synthetic Liquid Fuel)

SUBMITTED: January 7, 1960

Card 3/3

MASLYANSKIY, G.N.; RABINOVICH, G.L.

Demethylation of toluene by conversion with water vapor.
Neftekhimiia 1 no.2:182-186 Mr-Apr '61. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov, g. Leningrad.

(Toluene)

(Catalysts, Nickel) (Methylation)

MASLYANSKIY, G.N.; POTAPOVA, A.A.; AVTONOMOVA, N.Kh.; SHMULYAKOVSKIY, Ya.E.

Synthesis of ethyl benzene by catalytic reforming of ~~narrow~~
gasoline fractions. Neftekhimiia 1 no.2:187-194 Mr-Apr '61.
(MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov, g. Leningrad.

(Benzene)

(Gasoline)

S/064/61/000/003/001/009
B101/B203

AUTHORS: Bursian, N. R., Maslyanskiy, G. N.

TITLE: Catalytic isomerization of n-pentane on a platinum catalyst

PERIODICAL: Khimicheskaya promyshlennost', no. 3, 1961, 18-20

TEXT: The development of the isoprene rubber production and the increased demand of isopentane used as a raw material for isoprene were the reason for studying the isomerization of n-pentane to i-pentane. This isomerization by means of platinum catalysts has been mentioned in publications (Ref. 3: H. Heinemann et al. Erdöl und Kohle, No.4.228 (1959); Ref. 4: L. E. Dean et al. Oil Gas.J. 56, No. 29,54 (1958)). Platinum precipitated on a carrier was used in the present investigation. Initially, a catalyst with 0.6% of platinum was used, later on, more efficient catalysts giving the same yield at a temperature 30-40°C lower. Fig. 1 shows a diagram of the test plant. From the high-pressure graduated burette 1, the n-pentane passed into the dropping glass 2 where it mixed with the circulating hydrogen-containing gas, and entered the reaction vessel 3. The reaction products passed through the cooler 4 into the separator 5. The hydro-

Card 1/7

Catalytic isomerization of ...

S/064/61/000/003/001/009
B101/B203

carbon vapors carried along by the gaseous reaction products were condensed in the ice-cooled vessel 6. The circulating gas was pressed by a compressor into the filter system 8 where it was freed from oil. 9 is a rheometer. The liquid products were periodically filled from 5 into a vessel cooled with ice and salt. The gas liberated by throttling to atmospheric pressure was measured by the gas meter 10. The reaction vessel 3 contained 40 ml of catalyst whose temperature was measured by means of three Chromel-Alumel thermocouples. The fresh catalyst was reduced at elevated pressure and by circulation of 1000 apparatus volumes of H_2 . Temperature was gradually increased to $400^\circ C$ within 12 hr. The raw material used was n-pentane produced from hydrogenated Synthol by fractional distillation and containing 99.3% of n-pentane. Special tests were made with a mixture of 12.4% isopentane and 87.6% n-pentane. Raw materials and reaction products were analyzed by the chromatographic method developed at the VNIIneftekhim. The authors studied: 1) The effect of the molar ratio $H_2 : n-C_5H_{12}$. Tests were made at $380^\circ C$, and the ratio was varied between 2.3 and 34. Fig. 2 shows the results for n-pentane containing 12.4%

Card 2/7

Catalytic isomerization of ...

S/064/61/000/003/001/009
B101/B203

i-pentane; and n-pentane containing 0.7% i-pentane, at a volume velocity = 1 hr⁻¹. The course of the curves is explained by the circumstance that with increasing ratio the partial pressure of n-pentane decreases, which delays its isomerization. $H_2 : n-C_5H_{12} = 3$ is indicated as optimum still ensuring a steady operation of the catalyst. 2) The effect of pressure. Tests were made at 380° and 430°C. They showed that the kinetics of the process was better at low pressure. Higher pressure had, however, to be chosen to ensure steady operation of the catalyst at the ratio $H_2 : n-C_5H_{12} = 3$. [Abstracter's note: No numerical data on pressure are stated in the paper.] 3) The effect of volume velocity and temperature. Tests made with $H_2 : n-C_5H_{12} = 2.5$ at 380, 400, 420, 440, and 460°C and a volume velocity of 1.0-4.0 hr⁻¹ showed: When increasing the temperature by 20°C, the volume velocity had to be increased by the 1.9-2.4 fold to obtain the same yield of i-pentane. A 50% yield was attained at a volume velocity of 1.2 hr⁻¹ and a temperature of 420°C. A temperature increase to 460°C gave a yield of 58%. Fig. 4 shows the selectivity of the catalyst; the yield of C₁ - C₄ hydrocarbons as a function of the yield in i-C₅H₁₂.

Card 3/7

Catalytic isomerization of ...

S/064/61/000/003/001/009 - ✓
B101/B203

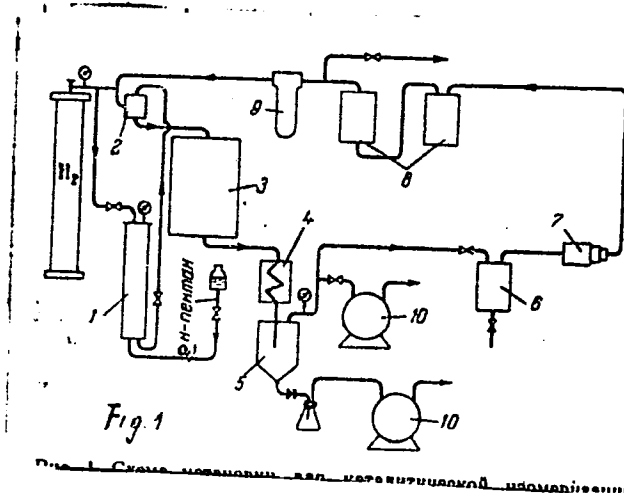
A test with n-pentane from petroleum containing 0.01% by weight of sulfur gave the following reaction products (in % by weight): methane 0.12, ethane 0.27, propane 0.51, isobutane 0.30, n-butane 0.30, i-pentane 50.0, n-pentane 47.0, losses 1.5. N. K. Volnukhina assisted in the experiments. There are 4 figures and 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

Card 4/7

Catalytic isomerization of ...

S/064/61/000/003/001/009
B101/B203

Legend to Fig. 1: a) n-pentane



Card 5/7

Fig. 1

Catalytic isomerization of ...

S/064/61/000/003/001/009
B101/B203

Legend to Fig. 2: 1) Specimen with 12.4% isopentane, 2) specimen with 0.7% isopentane, a) molar ratio $H_2 : n-C_5H_{12}$; b) yield of isomerization;

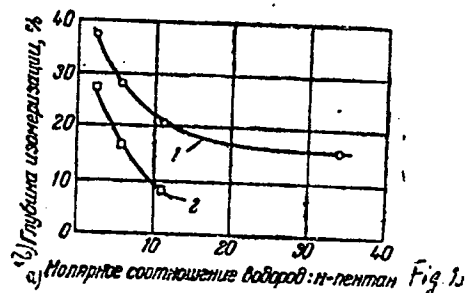


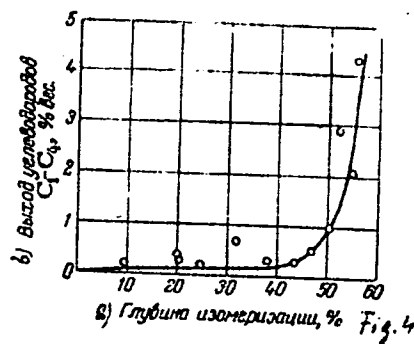
Fig. 2

Card. 6/7

Catalytic isomerization of ...

S/064/61/000/003/001/009
B101/B203

Legend to Fig. 4: a) yield of
isomerization; b) yield of
 $C_1 - C_4$ hydrocarbons



Card 7/7

Fig. 4

BURSIAN, N.R.; MASLYANSKIY, G.N.; Primal uchastiye: VOIMIKHINA, N.K.

Catalytic isomerization of n-pentane on a platinum catalyst. Khim.
prom. no.3:166-168 Mr '61. (MIRA 14:3)
(Pentane)

MASIYANSKIY, G.N.; BURSYAN, N.P.; KOBELEV, V.A. [deceased]; RYSKIN, M.I.

Catalytic isomerization of paraffin hydrocarbons on a tungsten catalyst. Khim.i tekhn.topl.i masel 6 no.1:11-15 Ja '61.

(MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

(Paraffins)

(Gasoline—Antiknock and antiknock mixtures)

BURSIAN, N.R.; MASLYANSKIY, G.N.

Effect of sulfur on the activity and selectiveness of platinum
reforming catalyst. Khim. i tekhn. topl. i masel. 6 no.10:6-9 0
'61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protseessov.

(Catalysts, Platinum)

(Sulfur)

26518
S/065/61/000/008/001/009
E030/E135

110100

AUTHORS: Maslyanskiy, G.N., Bursian, N.P., Kamusher, G.D.,
Potapova, A.A., Garanin, I.L., and Chernikov, N.V.

TITLE: Some technological points in catalytic reforming.

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No.8,
pp. 1-8

TEXT: Some very important principles in reforming have been established at a pilot plant specially constructed by Lengiprogaz on the basis of data supplied by VNIIneftekhim, and operated over six years. Since the reforming process is highly endothermic, laboratory conditions, which are approximately isothermal, cannot adequately simulate the adiabatic plant-scale conditions. The pilot plant is conventional, with three successive identical reactors, 160 mm diameter and 3100 mm high. Feed can enter at 20 to 50 atmospheres, and the reactors are maintained at 500-525°C. The first three experiments, lasting six months each, used Eastern crudes with about 25% naphthenes and no catalyst regeneration; the fourth used Il'skiy crude, with about 40-50% naphthenes and oxidative regeneration. In the first experiments, the reactor

Card 1/ 3

Some technological points in ...

26518
S/065/61/000/008/001/009
E030/E135

temperature was slowly increased to compensate for the decreasing catalyst activity (Pt catalyst). The Eastern crudes with 0.15% sulphur feed gave benzine with 72 ON (Motor method) but the fourth experiment, with hydrofined material, gave 78 ON. Adiabatically controlled experiments established the activation energies as around 75 kcal/kg. As the asphaltene content rose, the heating effect also rose sharply; it also rose as the sulphur content fell and destructive hydrogenation increased. The temperature drops in the reactors indicated that, for the Eastern crudes, the reaction of aromatization was virtually completed in the second reactor, but this disagreed with the product analysis from the reactors which gave the production of aromatics from stage to stage as about 50, 35 and 15%. Clearly, reaction continued in the last stage, but heat absorption was masked by the increasing exothermic hydrocracking in the third reactor. In the last series of experiments the temperature was probed through each catalyst bed. It was seen that with fresh catalyst and Eastern crudes with 0.15% sulphur, only about 50% of the first stage showed temperature gradients, and the whole of the second stage showed a gradual temperature gradient; one might therefore wish to reduce the charge

Card 2/3

Some technological points in

26518

S/065/61/000/008/001/009

E030/E135

in the first reactor, for economy. However, with catalyst ageing, the temperature drop began to be very shallow in about the first 10% of all three reactors, and there were distinct gradients in them all. This showed that the first stage was acting also as a trap for catalyst "poisons", and a large charge was therefore necessary, unless one wished to previously remove the poisons (such as nitrogen, sulphur, and arsenic) by hydrofining, for example. All the results of the investigation concerned fundamental principles which could not have been resolved in laboratory scale experiments.

There are 3 figures and 5 tables.

ASSOCIATION: VNIIneftekhim

X

Card 3/3

MASLYANSKIY, G.N.; RABINOVICH, G.L.

Catalytic demethylation of toluene. *Neftekhimiya* 2 no.5:709-715 3-0 '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov, Leningrad.
(Toluene) (Methyl group)

S/065/62/000/007/001/002
E075/E436

AUTHORS: Bursian, N.R., Maslyanskiy, G.N.

TITLE: Preliminary hydrofining of the feedstock for catalytic reforming process

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.7, 1962, 5-8

TEXT: A comparative study of two variants of a process for the hydrofining of high-sulphur straight-run benzenes is given. The feedstock was a fraction of Ishimbay crude ($d_{40}^{20} = 0.756$), of boiling point range 105 to 180°C, containing 0.26% S. It was shown that spent reforming Pt catalyst could be used with Al-Co-Mo catalyst for the desulphurization, the latter having a better desulphurizing action than the Pt catalyst at 380°C; both catalysts were equally effective at 420°C. With the molar ratio of H:feedstock = 0.3 - 0.4, pressure 30 to 40 kg/cm² and temperature 340 to 380°C, the content of sulphur after hydrofining was lowered to 0.007% during "on stream" operation. The operation with gas circulation gave 0.004% S content. For the ratio of H:feedstock of 0.36, pressure 30 kg/cm² and the rate of feed of 5.0 v/v of the catalyst per hour, Al-Co-Mo

Card 1/2

✓

Preliminary hydrofining ...

S/065/62/000/007/001/002
E075/E436

catalyst preserved its initial activity for 3 months.
There are 1 figure and 2 tables.

ASSOCIATION: VNIINeftekhim

Card 2/2

ACCESSION NR: AR3000550

s/0081/63/000/007/0510/0510

SOURCE: RZh. Khimiya, Abs. 7p185

AUTHOR: Maslyanskiy, G. N.; Bursian, N. R.; Mel'nikova, N. P.;
Fedorov, A. P.; Podol'skiy, M. A.

TITLE: Production of aromatic hydrocarbons by catalytic reforming
of gasoline fractions

CITED SOURCE: Novosti نفت. i gaz. tekhn. Neftepererabotka i
neftekhimiya, no. 7, 1962, 10-13

TOPIC TAGS: Krasnodar and Kuybyshev gasolines; catalytic reforming;
aromatic hydrocarbons

TRANSLATION: In a pilot-plant unit experiments were conducted on
catalytic reforming, over the industrial Pt-catalyst AP-56, of the
60-105° and 105-140° narrow fractions of straight-run gasolines of

Card 1/2

ACCESSION NR: AR3000550

the Krasnodar and Novokuybyshevsk refineries. The fractions of Krasnodar gasoline contained 1.5-1.7 times more naphthenic hydrocarbons and 1.5-2 times less S-compounds, than the analogous fractions of Kuybyshev gasoline. On catalytic reforming of the 60-105° fraction of Kuybyshev gasoline the yield of light aromatic hydrocarbons was 8.5%, as compared with 15% obtained as a result of processing of the analogous fraction of Krasnodar gasoline. The yield of high-boiling aromatic hydrocarbons from the above-stated fractions was found to be closely approximating, and amounted to about 20%. On catalytic reforming of the 105-160° fraction of either gasoline the yield of aromatic hydrocarbons C sub 8 amounted to 25-26%. -- A. N.

DATE ACQ: 21May63

ENCL: 00

SUB CODE: 00

Card 2/2

S/080/62/035/004/012/011
D204/D301

5.1190

AUTHORS: Maslyanskiy, G. N. and Bursian, N. R.

TITLE: A study of molybdenum and tungsten catalysts for the isomerization of paraffinic hydrocarbons

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962. 1-1962

TEXT: The activity and selectivity of W and Mo sulphide and oxide catalysts were compared by the isomerization reaction of n-hexane under a pressure of H₂, between ~350 and 550°C, since little work has been done in this field. The experimental procedure and analysis of the products (neo-hexane, iso-hexane, n-hexane, pentane, are briefly described. Activity of the catalysts was assessed by the iso-hexane: n-hexane ratio and selectivity by the pentane: iso-hexane ratio. Among the sulphide catalysts studied (WS₂-pure and on carriers, MoS₃ + Al₂O₃), pure WS₂ was found to be the best. Mixtures of S- and O-containing compounds or of naphthene hydro-

Card 1/3

A study of molybdenum ...

S/080/62/035/004, 012, 011
D204/D301

carbons to the reaction mixture did not impede the isomerization. The oxide catalysts ($\text{MoO}_3 + \text{Al}_2\text{O}_3$, $\text{NiO} + \text{MoO}_3 + \text{Al}_2\text{O}_3$, $\text{CoO} + \text{MoO}_3 + \text{Al}_2\text{O}_3$, $\text{CuO} + \text{MoO}_3 + \text{Al}_2\text{O}_3$ and $\text{WO}_3 + \text{Al}_2\text{O}_3$) showed a lower activity than the sulphides. The ($\text{MoO}_3 + \text{Al}_2\text{O}_3$) catalyst had the highest selectivity among the oxides. Activity of these catalysts could be appreciably increased by an alternate oxidation and reduction treatment which probably produced more active components. The ($\text{MoO}_3 + \text{Al}_2\text{O}_3$) catalyst could also be activated by fluorine. It was found that the nickel- and cobalt-molybdenic catalysts were readily poisoned by CS_2 or H_2S , but the activity could be restored by an oxidative regeneration. Fluorine-activated ($\text{MoO}_3 + \text{Al}_2\text{O}_3$) catalyst, therefore, considered the best oxide catalyst of those tested. The results are tabulated. There are 6 tables and 22 references: 10 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references in the English-language publications read as follows: Oil & Gas J., 54, 46, 183, (1956); Petr. Refiner., 35, 7, 148, (1956); ...
Card 2/3

A study of molybdenum ...

S/080/62/035/004/012/022
D204/D301

troleum, 28, 1, 67, (1957); H. W. Grote, Oil a. gas J., 56, 13, 73,
(1958).

SUBMITTED: March 31, 1961

Card 3/3

MASLYANSKIY, G.N.; RABINOVICH, G.L.; AVTONOMOVA, N.Kh.

Regeneration of a nickel-chromia catalyst in toluene demethylation.
Neftekhimiia 3 no.1:94-96 Ja-F '63. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
neftekhimicheskikh protsessov.
(Toluene) (Nickel catalysts) (Methyl group)

MASLYANSKIY, G.N.; BURSIAI, N.R.; KAMUSHER, G.D.; BARKAN, S.A.;
POTAPOVA, A.A.

Effect of the hydrocarbon and fractional composition of the
raw material on the yield and quality of catalytically
reformed gasolines. Khim. i tekhn. topl. i masel 8 no.4:5-11
Ap '63. (MIRA 16:6)

(Gasoline) (Petroleum—Analysis)
(Cracking process)

ASPEL', N.B.; GOLOV, G.S.; BURSIA, N.R.; MASLYANSKIY, G.N.

Domestic plants for catalytic reforming and the basic indices
of their operation. Khim. i tekhn. topl. i masel' 8 no. 5: 4-8
My '63. (MIRA 16:8)

1. Lengiprogaz i Vsesoyuznyy nauchno-issledovatel'skiy
institut neftekhimicheskikh protsessov.

MASLYANSKIY, G.N.; BARKAN, S.A.; PAMNIKOVA, R.F.

Methods for the further perfection of the catalytic reforming
process. Nefteper. i neftekhim no 9:3-7 '64. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skoy institut neftekhimi-
cheskikh protsessov, Leningrad.

MASLYANSKIY, G.N.; RABINOVICH, G.L.; AVTONOMOVA, N.Kh.

Catalytic dealkylation of ethyl benzene. Neftexhimia 4 no.3:421-
425 My-Je '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protssessov.

MASLYANSKIY, G.N.; RABINOVICH, G.L.; BRISKER, K.L.

Catalytic dealkylation of isomeric xylenes. Neftekhimiya 4
no.3:426-430 My-Je '64. (MIRA 18 2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh profsessorov.

ACCESSION NR: AP4018071

S/0080/64/037/002/0393/0399

AUTHORS: Maslyanskiy, G.N.; Kamusher, G.D.; Pannikova, R.F.

TITLE: Catalytic reforming of gasoline fractions in the presence of traces of carbon tetrachloride

SOURCE: Zhurnal prikladnoy khimii, v.37, no.2, 1964, 393-399

TOPIC TAGS: gasoline, gasoline fractions, catalytic reforming, aluminoplatinum catalyst, chloro organic compound addition, catalyst stability, octane number, catalyst regeneration, carbon tetrachloride trace

ABSTRACT: In studying the catalytic reforming of gasoline fractions with a catalyst consisting of 0.6% platinum precipitated with aluminum oxide, it was found that the addition of 0.005-0.01% CCl_4 to the crude oil increases the activity of the catalyst. This increase in activity is shown by the increase in octane number of the product (e.g., from 78.5 to 83), the increase in its aromatic hydrocarbon content (46.3 to 47.5%), and the decrease in its yield (from 81.1 to 75.2%). Introduction of very small amounts of organic chlorine compounds to the reac-

Card 1/2

ACCESSION NR: AP4018071

tion zone with the crude oil significantly increases stability of the aluminaplatinum catalyst; activity of the catalyst is constant after 120 hours as compared to reduced activity in 20 hours with "pure" crude oil. After oxidation regeneration, the catalyst shows higher catalytic activity if used on crude oil containing traces of CCl_4 (octane number of 85-87 as compared to 82-83 when used with "pure" crude oil). Orig. art. has: 2 tables and 2 figures.

ASSOCIATION: Vsesoyuzniy* nauchno-issledovatel'skiy neftekhimicheskiy institut (All-Union Petrochemical Scientific Research Institute)

SUBMITTED: 23Jul62

DATE ACQ: 19Mar64

ENCL: 00

SUB CODE: FL

NR REF SOV: 009

OTHER: 003

Card 2/2

L 29345-66 ENT(m)/I WE

ACC NR AP5027725 (A)

SOURCE CODE: UR/0065/65/000/009/0001/0005

AUTHOR: Bursian, N. R.; Maslyanskiy, G. N.; Volnukhina, N. K.;
Zabryanskiy, Ye. I.

50
B

ORG: VNIineftekhim

TITLE: Obtainment of high octane motor vehicle gasoline from blends of isoparaffin components and catalytically reformed gasoline

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 9, 1965, 1-5

TOPIC TAGS: motor vehicle gasoline, gasoline, fuel octane rating, liquid fuel, petroleum fuel, fuel additive, tetraethyl lead, catalytic reforming, isopentane

ABSTRACT: The 1965-1970 plan for the development of the national economy of the SSSR requires that the octane number of motor vehicle gasoline for domestic consumption be raised to 95. Experimental results show that 1) motor vehicle gasoline with a 95 octane number can be obtained on the base of catalytically reformed gasoline with a 97-98 octane number and a 25-30 wt. percent addition of isopentane, and 2) motor vehicle gasoline with 95 or higher octane numbers can be

Card 1/2

UDC: 665.521.23

L 29345-66

ACC NR: AP5027725

obtained with 0.41 g TEL/1 kg gasoline on the base of catalytically reformed gasoline with a 95 octane number and up to 30 wt. percent additions of isopentane and isoparaffin components with an octane number of 80-85. Orig. art. has: 3 figures and 3 tables. 0

SUB CODE: 21/ SUBM DATE: none / SOV REF: 003

Card 2/2 CC

MASLYANSKIY, G.N.; BURSIAI, N.R.; SHIPIKIN, V.V.

Change in the properties of the alumino-platinum reforming catalyst during protracted operation. Khim.i tekhn.topl. i masel 10 no.1:2-6 Ja '65. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

KLIMENKO, V.L.; TSURKIN, Ye.B.; KHIZHNYAK, V.F.; MASLYANSKIY, G.N.; BURSIAI, N.R.

Efficiency of the process of the isomerization of gasoline fractions.
Khim. i tekhn. topl. i masel 10 no.7:50-53 J1 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

BURSLAN, N.R.; MASLYANSKIY, G.N.; VOLNUKHINA, N.K.; ZABRYANSKIY, Ye.I.

Using isoparaffinic components and catalytic reforming gasolines
in the production of high-octane automobile fuels. Khim. i tekhn.
topl. i masel 10 no.9:1-5 S '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protssessov.

MASLYANSKIY, G.N.; PANNIKOVA, R.F.; KAMUSHER, G.D.

Production of high-octane catalytic reforming gasolines. Khim.
i tekhn. topl. i masel 10 no.12:1-6 D '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

VOICHANSKAYA, Ye.A., red.; MASLYANSKIY, G.N., red.; TERESHCHENKO,
V.A., kand. tekhn. nauk, red.; KHVOROSTANSKAYA, Ye.M.,
red.; GAYDAY, V.K., red.

[Treatment and applications of molten slags] Pererabotka i
primeneniye shlakovykh rasplavov. Kiev, Budivel'nyk, 1965.
218 p. (MIRA 18:12)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po de-
lam stroitel'stva.

ACC NR: AP7002623 (A,N) SOURCE CODE: UR/0413/66/000/023/0158/0159

INVENTOR: Maslyanskiy, G. N.; Kamusher, G. D.

ORG: None

TITLE: A method for producing an activated platinum catalyst. Class 12, No. 109630

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 158-159

TOPIC TAGS: industrial catalyst, gasoline, platinum, aluminum oxide, *CATALYTIC REFORMING*

ABSTRACT: This Author's Certificate introduces: 1. A method for producing an activated platinum catalyst for reforming gasoline. The catalyst contains aluminum oxide as a carrier. Catalytic activity is improved by the simultaneous use of two promoters—silicon and fluorine. These activators are introduced by treating aluminum oxide or hydroxide in fluosilicic acid or silicon tetrafluoride. 2. A modification of this method in which fluosilicic acids are introduced in quantities from 0.2 to 3.0%.

SUB CODE: 07, 21 / SUBM DATE: 23Jul57

Card 1/1

ACC NR: AP7002624 (A, N) SOURCE CODE: UR/0413/66/000/023/0159/0159

INVENTOR: Maslyanskiy, G. N.; Kamusher, G. D.; Mushenko, V. M.

ORG: None

TITLE: A method of producing a platinum catalyst. Class 12, No. 108268

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 159

TOPIC TAGS: industrial catalyst, platinum, gasoline, aluminum oxide, CATALYTIC
REFERENCE

ABSTRACT: This Author's Certificate introduces: 1. A method of producing a platinum catalyst for reforming gasoline by treatment of granulated aluminum oxide in a solution of chloroplatinate. To improve the activity and stability of the catalyst, the depth of platinum penetration into the carrier granule (tablet) is controlled by adding certain quantities of organic or mineral acids to the chloroplatinate solution. 2. A procedure for carrying out this method in which the process is accelerated by maintaining a temperature above 20°C.

SUB CODE: 07, 21 / SUBM DATE: 28Jul55

Card 1/1

BELOV, A.V.; MASLYANSKIY, L.I.

Water separators for gas drain ducts. Ugol' 37 no.2:49-50
F '62. (MIRA 15:2)

(Mine gas)
(Water drainage)

S/065/63/000/002/005/008
E194/E484

AUTHORS: Maslyanskiy, N.G., Zabryanskiy, Ye.I., Kamusher, G.D.,
Pannikova, R.F.

TITLE: The detonation stability of gasoline produced by
catalytic reforming

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.2, 1962,
49-52

TEXT: After a review of the motor and research methods of determining the octane number of gasoline and the meaning of sensitivity, the use of these methods to assess the detonation characteristics of gasoline produced by catalytic reforming is described. The gasolines were produced by reforming fractions 85 to 180 and 105 to 180°C, produced by rectification of straight run gasoline in the Ufimskiy ordena Lenina neftepererabatyvayushchiy zavod (Ufa Order of Lenin Petroleum Refinery). A study was first made of the influence of the aromatic content of the gasoline which was varied by altering the process temperature; raising the aromatics content increased both the octane number and the sensitivity. Tests made with reforming pressures of 20 and 40 kg/cm² showed that this variable had very little effect on the
Card 1/2

The detonation stability ...

S/065/63/000/002/005/008
E194/E484

detonation characteristics of the gasoline of given aromatics content. Tests of the influence of reformed gasoline yield on octane number would yield a similar picture, the higher the yield and, therefore, the lower the aromaticity and octane number the lower the sensitivity. The addition of 0.5 ml t.e.l. concentrate P-9 (R-9) per kg gasoline raised both the motor and research octane numbers by about four points. There are 4 figures and 2 tables.

ASSOCIATION: VNIINeftekhim, VNII NP

Card 2/2

MASLYANSKIY, N.G.; ZABRYANSKIY, Ye.I.; KAMUSHER, G.D.; PANNIKOVA, R.F.

Detonation stability of gasolines from catalytic reforming. Khim.i
tekh.topl.i masel 8 no.2:49-52 F '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh
protsessov i Vsesoyuznyy nauchno-issledovatel'skiy institut po
pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo
topliva.

SURGUCHEV, M.L.; MASLYANTSEV, Yu.V.

Effect of selective fluid flow in a nonuniform layer on flooding indices. Nauch. tekhn. sbor. po dob. nefi no.27:54-61 '65. (MIRA 18:9)

1. Gosudarstvennyy institut po proyektirovaniyu i issledovatel'skim rabotam neftedobyvayushchey promyshlennosti vostochnykh rayonov strany, Kuybyshev.

LEVIT, G.T., inzh.; VTOROV, Ye.P., inzh.; MASLYAYEV, A.S., inzh.;
DUDOROV, Yu.D., inzh.

Burning of Ekibastuz coal in furnaces with hammer mills. Elek.
sta. 34 no.8:8-13 Ag '63. (MIRA 16:11)

MASLYANYI, A.S.

MASLYANYI, A.S., aspirant

Possibility of increasing the number of self-initiative
systems. Izv. VNIIT. pt. 126-127. '62. (NOV 1879)

ARKHANGEL'SKIY, P.P., agronom po zashchite rasteniy (Kazakhskaya SSR);
MASLYAYEV, A.V.

Responses to our articles. Zashch. rast. ot vred. i bol. 9 no.1:
18 '64. (MIRA 17:4)

1. Starshiy agronom po zashchite rasteniy Manturovskogo proizvodst-
vennogo upravleniya Kostromskoy oblasti.

MASLYAYEV, G. A.

Geology, Stratigraphic

Boundary between the Tertiary and Quarternary periods. Izv. Vses. geol. obsch., 84,
No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

MASLYAYEV, G. A.

USSR/Geology - Geomorphology

Card 1/1 Pub. 22 - 32/45

Authors : Maslyayev, G. A.

Title : New data on the geomorphology and newest tectonics of southern Ergeney

Periodical : Dok. AN SSSR 99/4, 609-612, Dec 1, 1954

Abstract : New geological data regarding the geomorphology and newest tectonics of southern Ergeney are presented. Two USSR references (1947). Drawings.

Institution : Ministry of Petroleum Industry USSR, Geological-Exploratory Office

Presented by: Academician I. P. Gerasimov, July 1, 1954

MASLYAYEV, G. A.

Course of ancient scouring on the Russian Plain. Trudy Inst. geog.
no. 65:75-85 '55. (MLRA 8:11)
(Russian Plain--Paleogeography)

MASLYAYEV, G. A.

Авиационная съемка
Ленинградский университет
ФРАНС I ДОК. 107
807/1952
... 807/1-3-3

Study, tom 8: Materials VII Vsesoyuznyy simposium (symposium) aerofotokartirovaniya po aerofotokartirovaniyu 25 November - 1 December 1956. (Materials of the 7th All-Union Interdepartmental Conference on Aerial Surveying, 25 November-1 December 1956) Moscow, Geogizizdat, 1959. 300 p. 5,000 copies printed.

Ed. of Publishing House: V. G. Filin; Mash. M.: O. A. Gureva; Editorial Commission: E. G. Koll', Corresponding Member, Academy of Sciences USSR; A. A. Logunov, V. P. Muravichukhin (Resp. Ed.), and E. S. Scholov.

REMARK: This publication is intended for photogrammetrists, geologists, geographers, and other scientific and technical personnel concerned with aerial photography.

CONTENTS: This issue of the Transactions of the Laboratory of Aerial Survey Methods contains the second part of materials presented at the 7th All-Union Interdepartmental Conference on Aerial Surveying, which took place in Leningrad, November 25 through December 1, 1956. Articles treat problems dealing with the examination and application of aerial survey methods in geological, geomorphological, and geophysical investigations. Special attention is directed to aerial survey methods in geological and geomorphological mapping and geophysical work under different conditions. The techniques of joint airmass magnetic prospecting and aerial photography are described. References accompany individual articles.

TABLE OF CONTENTS:

Aristarkhov, L. B. [All-Union Trust for Aerial Geological Surveying]. Results from the Application of Aerial-Survey Methods to Integrated Geological Surveying of Desert and Semi-Desert Areas Near the Caspian Sea. 74

Maslyayev, G. A. [Soyuznyy geologicheskyy fond - All-Union Geological Fund]. The Results of the Surveying of the Eastern Part of the Ponto-Caspian Area [Central Mayan Lowland] According to Aerogeomorphological-Survey Data. 76

Severinov, I. S., and B. E. Krasil'nikov [All-Union Trust for Aerial Geological Surveying]. Results of Aerogeological Interpretation Demonstrated in the Muzhikskaya Basin [Depression]. 82

Volk, A. V. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Geological Structures of Russian Formations in the Dniepr-Bug Region (Central Kazakhstan). 101

Babitskiy, O. A. [All-Union Trust for Aerial Geological Surveying]. Results from the Application of Aerial-Survey Methods to Integrated Geological Surveying of Gorny Altay. 113

Esheta, E. V., and V. B. Krasov [Laboratory of Aerial-Survey Methods, Academy of Sciences USSR]. Application of Aerial-Survey Methods in the Exploration of Khabarovsk Reservoirs. 120

Vitkovskiy, S. V., and Ye. A. Vostokov [All-Union Trust for Aerial Geological Surveying]. Results of Applying Aerial-Survey Methods to Geobotanical Observations Carried Out Within the Scope of Geological and Hydrogeological Explorations. 126

Krasov, M. A. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Problems Related to the Geological Interpretation of the Photometric Properties of Rock (Summarized in the Study of Sedimentary Deposits of Western Turkmenia). 130

Prizhal, L. M. [All-Union Trust for Aerial Geological Surveying]. Results from the Office Layout of the Topographic Map at 1:75,000 Scale for Geological Studies. 136

Gur'yeva, E. I. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Application of Aerial Photography to Geomorphological Studies of Seashores and Lakesides. 143

Kolov, I. A. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Geomorphological Aspects of Geomorphological Interpretation of Aerial Photographs of Dnieper and Steppes. 150

Byelovskiy, A. Ye. [Laboratory of Aerial Survey Methods, Academy of Sciences USSR]. Laboratory of Topography, Academy of Sciences USSR. The Role of Aerial-Survey Methods in Studying Volcanic Regions. 171

SOV/20-128-2-42/59

3(5)

AUTHOR:

Maslyayev, G. A.

TITLE:

New Data on the Likhvin Lake Sediments

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 2, pp 372-374
(USSR)

ABSTRACT:

The sediments mentioned in the title have been known since more than 50 years (N. N. Bogolyubov, Ref 3). In the so-called "lake marls" which also belong to them an abundant flora and fauna was found. V. D. Lebedev (Ref 7) investigated its fish. The age of these sediments was determined as being "not younger than Lower Quaternary" (Refs 1,4-6,13) and Upper Pliocene (P. A. Nikitin, Ref 9), respectively. In every investigation new types of died out plants were found. In the Likhvin flora 25% of such plants or of types which are not found in recent form are known (Refs 1,9,13,et al.). Due to this fact the flora has to be regarded as Pliocene. This conclusion is in agreement with the results of geological and geomorphological investigations by the author in the Oka river valley (Ref 8). These sediments can however not yet be attributed to a definite Pliocene stage due to the flora and the mentioned investiga-

Card 1/2

New Data on the Likhvin Lake Sediments

SOV/20-128-2-42/59

tions. The investigation of the Ostracoda contained in the "lake marl" clarified some problems of the synchronization of the Likhvin sediments with the Pliocene of the South of the Russian plane. The Ostracoda were determined by V. A. Ivanova and A. V. Suzin. These two scientists and A. V. Shveyyer (Ref 14, p 57) classify these types as Akchagyl. Thus the Likhvin sediments must be definitely determined as belonging to the Akchagyl stage of the Pliocene on the basis of the flora and the fauna of fish and Ostracoda. There are 14 Soviet references.

PRESENTED: May 19, 1959, by I. P. Gerasimov, Academician

SUBMITTED: May 18, 1959

Card 2/2

NASLYAYEV, G.A.

Recent tectonics of the Sos'va area in the Ob' Valley. Trudy SGPK
no.1:255-263 '60. (MIRA 13:10)
(Ob' Valley--Geology, Structural)

MASLYAYEV, G.A.

Geomorphological levels and surface formations of the Yergeni Hills.
Izv. AN SSSR. Ser. geog. no.6:55-61 N-D '60. (MIRA 13:10)

1. Soyuznaya geologo-poiskovaya kontora.
(Yergeni Hills--Geology, Structural)

MASLYAYEV, G.A.

Report tectonics of Ciscaucasia. Dokl. AN SSSR 135 no. 5:1199-1202
D #60. (MIRA 13:12)

1. Predstavleno akademikom I.P. Gerasimovym.
(Caucasus, Northern—Geology, Structural)

MASLYAYEV, G.A.

Age of the continental sediments of the East European Plain. Trudy
SGPK no.2:286-301 '61. (MIRA 14:11)
(East European Plain--Geology, Stratigraphic)
(Geological age)